

REMARKS/ARGUMENTS

Claims 18 and 20-37 are pending.

Claims 18, 24 and 26 have been amended to incorporate the limitations from Claim 19.

No new matter is believed to have been added.

Applicants thank Examiner Mruk for the courtesy of discussing the issues present in the Official Action with their undersigned representative on June 18, 2008. During this meeting, the rejections citing Mattox, Pinter and Candau were discussed. The substance of this discussion is summarized and expanded upon in the remarks below in reference to each of the cited publications.

As apparent from the claims, Claim 18 defines a cosurfactant as an amphiphilic polymer with the structural formula (I), comprising a series of defined structural units:

a first structural unit A' which is linked via Y (O or S) to a second structural unit A with the A'-Y portion defined as a monofunctional unbranched or branched alcohol or thiol radical having 8 to 30 carbon atoms per molecule.

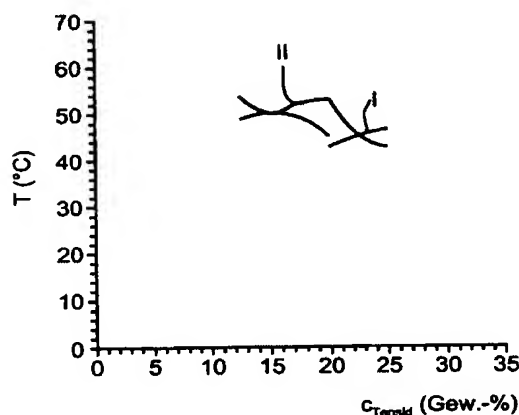
"A" defines oligomeric or polymeric alkylene oxides, except ethylene oxide (because not all four but a maximum of three of the substituents R1 to R4 are hydrogen), and is a further structural unit with hydrophobic character, which is weaker compared to the first structural unit.

To "A" X is attached when q is 1 otherwise it can be absent when q=0.

To X there is a fourth structural unit that is the hydrophilic part of the amphiphilic polymer and includes ethylene oxide or a mixture of ethylene oxide and propylene oxide. Accordingly, the fourth structural unit compulsory comprises ethylene oxide, alone or in mixture with propylene oxide.

As discussed in the application, the amphiphilic polymer defined in the claims, corresponding to formula (I) is causal for its property as cosurfactant, that is to enhance the efficiency of tensides in mixtures with tensides to stabilize emulsions, especially microemulsions. Said another way, the addition of cosurfactants having the structure defined in the claims is able to stabilize emulsions with a quantity of tenside which is reduced compared to use of the tenside alone, without the addition of the cosurfactant.

These effects are demonstrated by the shift of the X-point to lower tenside concentrations, as shown in the examples and the figure (see below).



The cosurfactant as defined in the claims is neither described nor suggested by what is provided in the cited publications. Here's why.

Pinter describes microemulsions for plant protection, including phosphoric acid ester and/or thiophosphoric acid ester as active ingredient and a non-ionic surface active ingredient, preferably a block copolymer with a molecular weight of 1,000 : 10,000 as well as further a surface active substance ("cosurfactant"). The non-ionic surface active substance is preferably a block copolymer of polyethylene oxide and polypropylene oxide, an alkylphenole polyglycole ether or an ethoxylated fatty alcohol.

Block copolymers of polyethylene oxide and polypropylene oxide would only correspond to the second structural unit (propylene oxide) of structural formula (I) and to the

fourth structural unit (ethylene oxide), but a structural unit corresponding to the first structural unit in formula (I), i.e. a terminal alkyl group, is missing.

Alkylphenol polyglycol ethers comprise only structural units corresponding to the first structural unit (terminal alkyl group, which is bond to an oxygen atom) and to the fourth structural unit (polyethylene oxide), but is missing a structural unit corresponding to the second structural unit, i.e. an oligomer alkylene oxide, which is not ethylene oxide.

Ethoxylated fatty alcohols, while include a structural unit corresponding to the fourth structural unit (ethylene oxide), and as corresponding to the first structural unit a fatty alcohol radical, there is missing at least a radical corresponding to the second structural unit, such as an oligomer alkylene oxide, which is not ethylene oxide.

Withdrawal of the rejections based on Pinter is requested.

Candau describes an amphiphilic copolymer with at least one hydrophilic block and at least one hydrophobic block that can be used to stabilize dispersions of insoluble organic compounds. The amphiphilic copolymers include polyalkoxylated aliphatic alcohols or triblock copolymers of ethylene oxide and propylene oxide as defined in paragraphs [0198] to [0205] of Candau.

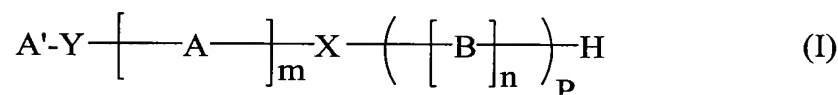
As discussed above in relation to the Pinter publication, polyalkoxylated aliphatic alcohols, while include a structural unit corresponding to the fourth structural unit (ethylene oxide), and as corresponding to the first structural unit a fatty alcohol radical, there is missing at least a radical corresponding to the second structural unit, such as an oligomer alkylene oxide.

Regarding the triblock copolymers of ethylene oxide and propylene oxide, they at least lack a structural unit corresponding to the first structural unit which is a hydrocarbon

radical, which is linked to a second structural unit, the second structural unit being an oligomer or a polymer alkylene oxide, except ethylene oxide.

Withdrawal of the rejection based on Candau is requested.

To the rejection based on Mattox. During the above-noted meeting the Examiner explained that the broadest reasonable interpretation overlapped with the Mattox copolymer (referencing the formula and accompanying definitions in col. 4, lines 10-28 of Mattox). However, Mattox does not define a cosurfactant where in formula (I)



A'-Y is a monofunctional unbranched or branched alcohol or thiol radical having 8 to 30 carbon atoms per molecule. Instead, Mattox only describes (col. 4, lines 11-23) polyoxyethylene and polyoxypropylene block copolymers, wherein R<sup>3</sup> may be a C<sub>1</sub> to C<sub>6</sub> alkoxy radical and as such the upper limit of the radical corresponding to unit A' in claim 18 is C<sub>6</sub> whereas the lower limit of A' in the claims is 8.

Withdrawal of the rejection based on Mattox is requested.


It is requested that the provisional obviousness-type double patenting rejections citing copending 10/556,793 and 10/588,719 be held in abeyance as the alleged conflicting claims have not yet been patented.

U.S. application serial no. 10/557,600  
Reply to Official Action of March 11, 2008

Allowance of the claims is requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.  
Norman F. Oblon



---

Daniel J. Pereira, Ph.D.  
Registration No. 45,518

Customer Number  
**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 06/04)  
DKD:aif

**J. Derek Mason, Ph.D.**  
**Registration No. 35,270**